Attorney's Docket No.: 05770-198001 / AMSC-665



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Malozemoff et al.

Art Unit: 2831

Serial No.: 10

: 10/624,026

Examiner: Unknown

Filed

: July 21, 2003

Title

: HIGH TEMPERATURE SUPERCONDUCTING DEVICES AND RELATED

METHODS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicant submits copies of all foreign patent documents, foreign patent applications, and other documents listed on the attached form PTO-1449. In accordance with the U.S. Patent and Trademark Office Official Gazette Notice dated August 5, 2003, copies of U.S. patents and published U.S. applications listed on the attached form PTO-1449 are not included.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 2-9-2004

Deborah M. Vernon Reg. No. P-55,699

Fish & Richardson P.C. 225 Franklin Street

Boston, MA 02110-2804

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

20780469.doc

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Sindhur Anna

Typed or Printed Name of Person Signing Certificate

Sobsitive Form PTO-1449

U.S. Department of Commerce Patent and Trademark Office

Attorney's Docket No.

05770-198001

Application No.
10/624,026

Applicant

Malozemoff et al.

by Applicant
(Use several sheets if necessary)

Filing Date Group Art Unit July 21, 2003 2831

U.S. Patent Documents							
Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	6,256,521 B1	07/03/2001	Lee et al.			
	AB	6,172,009 B1	01/09/2001	Smith et al.			
	AC	6,077,344	06/20/2000	Shoup et al.			
	AD	6,027,564	02/22/2000	Fritzemeier et al.			
	AE	6,022,832	02/08/2000	Fritzemeier et al.			
	AF	5,981,445	11/09/1999	Kirchnerova et al.			
	AG	5,968,877	10/19/1999	Budai et al.			
	AH	5,964,966	10/12/1999	Goyal et al.			
	AI	5,958,599	09/28/1999	Goyal et al.			
	AJ	5,866,252	02/02/1999	de Rochemont et al.			
	AK	5,741,377	04/21/1998	Goyal et al.			
	AL	5,728,214	03/17/1998	Konishi et al.			
	AM	5,571,603	11/05/1996	Utumi et al.			
	AN	5,484,766	01/16/1996	Shah et al.			
	AO	5,449,659	09/12/1995	Garrison et al.			
	AP	5,427,055	06/27/1995	Ichikawa			
	AQ	5,304,533	04/19/1994	Kobayashi et al.			
	AR	5,236,890	08/17/1993	Murakami et al.			
	AS	5,231,074	07/27/1993	Cima et al.			
	AT	5,229,358	07/20/1993	Kumar			
	AU	5,073,537	12/17/1991	Hung et al.			
	AV	5,071,828	12/10/1991	Greuter et al.			
	AW	5,038,127	08/06/1991	Dersch			
	AX	4,994,435	02/19/1991	Shiga et al.			
	AY	4,994,433	02/19/1991	Chiang			
	AZ	4,959,347	09/25/1990	Kobayashi et al.			
	AAA	4,956,340	09/11/1990	Kimura et al.			

Examiner	Signature	

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449

Informati n

(Use seve

U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 05770-198001
Applicant

Application No. 10/624,026

Informati n Disclosure Statem nt by Applicant (Use several sheets if necessary)

Malozemoff et al.

(1.98(b))

Filing Date Group Art Unit July 21, 2003 2831

U.S. Patent Documents							
Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	4,882,312	11/21/1989	Mongro-Campero et al.			
	ACC	4,859,652	08/22/1989	Block			
	ADD	4,659,973	04/21/1987	Stich			
	AEE	4,442,396	04/10/1984	Hucker			
	AFF	3,985,281	10/12/1976	Diepers et al.			
	AGG	3,763,552	10/09/1973	Brown et al.			

	Foreig	n Patent Doc	uments or P	ublished Foreign I	Patent A	Applicatio	ns	
Examiner	Desig.	Document	Publication	Country or				lation
Initial	ID	Number	Date	Patent Office	Class	Subclass	≨ Yes:	No.
	AHH	WO 01/98076	12/27/2001	PCT				
	AII	WO 99/35083	07/15/1999	PCT (abstract only)				
	AJJ	WO 99/25908	05/27/1999	PCT				
	AKK	WO 99/16941	04/08/1999	PCT				
	ALL	WO 99/17307	04/08/1999	PCT				
	AMM	WO 98/58415	12/23/1998	PCT				
	ANN	0 872 579 A1	10/21/1998	EPO				
	AOO	WO 97/05669	02/13/1997	PCT				
	APP	0 584 410 A1	03/02/1994	EPO				
	AQQ	0 506 528 A1	09/30/1992	EPO				X
	ARR	0 506 528 B1	09/30/1992	EPO				X
-	ASS	WO 92/05591	04/02/1992	PCT				
	ATT	WO 91/16149	10/31/1991	PCT				
	AUU	0 431 782 A1	06/12/1991	EPO				
	AVV	0 387 525 A1	09/19/1990	EPO				X
	AWW	0 387 525 B1	09/19/1990	EPO				X
	AXX	0 308 869 A3	03/29/1989	EPO		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	AYY	63310366	12/19/1988	Japan (abstract only)				×

	r Siana	

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449
(Modified)
Information
(Use seve

U.S. Department of Commerce Patent and Trademark Office Attorney's Docket No. 05770-198001
Applicant

Application No. 10/624,026

Information Disclosure Statement
by Applicant
(Use several sheets if necessary)

Malozemoff et al.

...

Filing Date Group Art Unit July 21, 2003 2831

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner	Desig.	Document	Publication	Country or			Trans	lation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	AZZ	57075564	05/12/1982	Japan (abstract only)				

	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner	Desig.	and the transfer of the party and the party
Initial	ID	Document
	AAAA	"DRY ETCHING for VLSI FABRICATION", vol. 1, eds. S. Wolf and R.N. Tamber, Lattice Press, Sunset Park, CA, pp 539-574 (1986).
	ABBB	"FABRICATION OF HIGH TEMPERATURE SUPERCONDUCTING FILMS USING PERFLUORO-ORGANOMETALLIC PRECURSORS", IBM Technical Disclosure Bulletin, Vol. 32, No. 5B, October 1989, p 241.
	ACCC	Apicella et al., "The Effects of Surface Contamination On The Biaxially Textured Substrate For YBCO Thick Film Deposition", International Journal of Modern Physics B, Vol. 13, Nos. 9 & 10 (1999) pp 997-1004.
	ADDD	Beach et al., "SOL-GEL SYNTHESIS OF RARE EARTH ALUMINATE FILMS AS BUFFER LAYERS FOR HIGH Tc SUPERCONDUCTING FILMS", Mat. Res. Soc. Symp. Proc. Vol. 495, 195, pp 263-270.
	AEEE	Boffa et al., "Laser-ablation deposition of CeO ₂ thin films on biaxially textured nickel substrates", Physica C 312 (1999) 202-212.
-	AFFF	Gupta, et al., "Superconducting oxide films with high transition temperature prepared from metal trifluoroacetate precursors," 320 Applied Physics Letters 52 (1988) No. 24, New York, NY, USA
	AGGG	Hammerl et al., "Possible solution of the grain-boundary problem for applications of high-T _c superconductors", Appl. Phys. Lett., Vol. 81, No. 17, 2002).
	АННН	He et al., "Deposition of biaxilaly-oriented metal and oxide buffer-layer films on textured Ni tapes: new substrates for high-current, high-temperature superconductors", Physica C, 275 (1997) 155-161.
	AIII	He et al., "Growth of biaxially oriented conductive LaNiO ₃ buffer layers on textured Ni tapes for high-Tc-coated conductors", Physica C 314 (1999) 105-111.
	AJJJ	Koster et al., "flInfluence of the surface treatment on the homoepitaxial growth of SrTioO ₃ ", Materials Science and Engineering B56 (1998) 209-212.
	AKKK	Lee et al., "Alternative Buffer Architectures for High Critical Current Density YBCO Superconducting Deposits on Rolling Assisted Biaxially-Textured Substrates", Jpn. J. Appl. Phys. Vol. 38 (1999) Pt. 2, No. 2B, pp 178-180.
	ALLL	McIntyre et al, "Epitaxial nucleation and growth of chemically derived Ba ₂ Ycu ₃ O _{7-x} thin films on (001) SrTiO ₃ ", Journal of Applied Physics, 77 (1995) 15 May, No. 10, pp 5263-5272.
-	AMMM	McIntyre et al., "Effect of growth conditions on the properties and morphology of chemically derived epitaxial thin films of Ba ₂ Ycu ₃ O _{7-x} on (001) LaAIO ₃ ", J. Appl. Phys. 71 (4), 15 February 1992, pp 1868 – 1877.
	ANNN	Moore et al., "Sol-Gel Processing of Y ₁ Ba ₂ Cu ₃ O _{7-x} Using Alkoxide Precursors: Two Systems Yielding High Degrees of Thin Film Orientation and Crystal Growth", Materials Letters, Vol 7, No. 12, March 1989, pp 415-424.

	
Examiner Signature	Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

_	Substitute	Form PTO-144
1	(Modified)	
(Y '	6	
	de v	্র্বাnformatio
′	1,0	
		1 /1 lco c

U.S. Department of Commerce Patent and Trademark Office Information DiscI sur Stat ment by Applicant (Use several sheets if necessary)

Malozemoff et al.

Filing Date Group Art Unit
July 21, 2003 2831

Other Documents (include Author, Title, Date, and Place of Publication) Examiner Desig. Initial ID **Document** Paranthaman et al., "Growth of biaxially textured RE₂O₃ buffer layers on rolled-Ni substrates using A000 reactive evaporation for HTS-coated conductors", Supercond. Sci. Techno. 12(1999) 319-315. Printed in the UK. Oing He, D.K. et al., "Deposition of biaxially-oriented metal and oxide buffer-layer films on **APPP** textured Ni tapes: new substrates for high-current, high-temperature superconductors", Physica C, Vol. 275 (1997) pp. 155-161 Rupich et al., "Growth and Characterization of Oxide Buffer Layers for YBCO Coated Conductors", AQQQ IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, Vol. 9, No. 2, June 1999, pp 1527-1530. Rupich et al., "Synthesis of superconductors from soluble metal oxo alkoxide precursors", J. Mater. ARRR Res., Vol. 8, No. 7, Jul 1993, pp 1487-1496. Sheth et al., "Bench Scale Evaluation of Batch Mode Dip-Coating of Sol-Gel LaAIO3 Buffer Material", IEEE TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, Vol. 9, No. 2, June ASSS 1999, pp 1514 – 1518. Shoup et al., "Epitaxial Thin Film Growth of Lanthanum and Neodymium Aluminate Films on Roll-ATTT Textured Nickel Using a Sol-Gel Method", Journal of the American Ceramic Society, Vol. 81, No. 11, November 1998, pp-3019-3021. Smith et al., "High Critical Current Density Thick MOD-Derived YBCO Films", IEEE **AUUU** TRANSACTIONS ON APPLIED SUPERCONDUCTIVITY, Vol. 9, No. 2, June 1999, pp 1531-Tanaka et al., "Improvement of YBa₂Cu₃O₂, Single-Crystal Surface by Chemical Etching", Jpn. J. AVVV App. Phys. Vol. 38 (1999) pp L731-L733, Part 2, No. 7A, 1 July 1999.

20776166

Examiner Signature

Date Considered